

AMENDMENT UNDER 37 C.F.R. § 1.114
Appln. No. 09/865,720
Docket No. Q64636

REMARKS

Claims 1-22 are all the claims pending in the application. Claims 1, 9, and 22 are independent claims.

As a preliminary matter, Applicant thanks the Examiner for the discussion with Applicant's representative regarding independent claim 1 on December 9, 2003. In view of this discussion, Applicant has amended claim 1 in the manner discussed in an attempt to advance prosecution by further distinguishing claim 1 from the cooling system of Hesselbom (US 6,014,313).

Specifically, independent claim 1 has been amended to recite that the claimed electronic assembly includes a heat removal means that includes a pipe having a first end and a second end and containing a fluid; wherein the first end is connected to the first face and the second end is connected to the soleplate. This amendment is fully supported by the original specification at least by the non-limiting embodiment described at page 8, lines 14-23 and at page 9, lines 3 and 4.

Allowable Subject Matter

Applicants note with appreciation that the Examiner has allowed claims 9-12 and 14-22.

Claim Rejections Under 35 U.S.C. § 103

Claims 1-8 and 13 are rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Hesselbom (US 6,014,313). Applicants respectfully traverse this rejection at least because Hesselbom does not teach or suggest all of the claim recitations.

AMENDMENT UNDER 37 C.F.R. § 1.114
Appln. No. 09/865,720
Docket No. Q64636

For example, Hesselbom does not teach or suggest the claimed electronic assembly having a heat removal means that includes a pipe having a first end and a second end and containing a fluid; wherein the first end is connected to the first face and the second end is connected to the soleplate.

As was discussed in the Amendment filed September 2, 2003, Hesselbom teaches a multi-chip module 1 with several integrated circuit chips 3 (cited as corresponding to the electronic module) in mechanical contact with cooling blocks 19. Hesselbom at Fig. 2. The cooling blocks 19 (cited as corresponding to the soleplate) have cooling flanges or fins 33 that are cooled by, for example, air or cooling liquid flowing past the flanges. Hesselbom at 10:35-42. In addition, Hesselbom discusses an alternative embodiment (not shown) in which the channels 35 formed on the sides of the chips 3 can be used for cooling the chips 3 by transporting a cooling medium within a sealed system within the channels 35 to an external condenser. Hesselbom at 11:6-13 & Figs. 1 and 2.

As discussed in the Advisory Action dated October 6, 2003, it is the Examiner's position that the channels/pipes of Hesselbom's sealed system remove heat to the soleplate 19. However, the sealed system within the channels 35 that send heat to an external condenser cannot be considered the recited heat removal means that includes a pipe having a first end and a second end and containing a fluid; wherein the first end is connected to the first face and the second end is connected to the soleplate. Instead, one end of Hesselbom's sealed system provides the cooling medium to the *external condenser* of a two-phase system and, therefore, is not connected to the soleplate.

AMENDMENT UNDER 37 C.F.R. § 1.114
Appln. No. 09/865,720
Docket No. Q64636

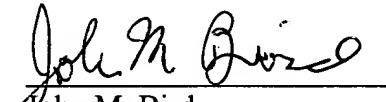
Conclusion

Therefore, Applicants respectfully request the Examiner to withdraw the rejection of claim 1 at least because Hesselbom does not teach or suggest the claimed electronic assembly having a heat removal means that includes a pipe having a first end and a second end and containing a fluid; wherein the first end is connected to the first face and the second end is connected to the soleplate. In addition, Applicants respectfully request the Examiner to withdraw the rejection of claims 2-8 and 13 at least because of their dependency from claim 1.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,


John M. Bird

Registration No. 46,027

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE
23373
CUSTOMER NUMBER

Date: December 17, 2003